



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

84

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/821,360

04/09/2004

Clyde H. Boyer

BOYZ 2 00018-1

1196

7590

10/19/2004

Patrick R. Roche, Esq.

Fay, Sharpe, Fagan, Minnich & McKee, LLP

7th Floor

1100 Superior Avenue

Cleveland, OH 44114-2518

EXAMINER

PHAM, LAM P

ART UNIT

PAPER NUMBER

2636

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/821,360

Applicant(s)

BOYER ET AL.

Examiner

Lam P Pham

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-28 is/are rejected.
- 7) ☒ Claim(s) 15-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/9/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 15-17 objected to because of the following informalities: they depend on a canceled claim 10. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 14, 16-17 rejected under 35 U.S.C. 102(b) as being anticipated by **Woods** et al. (US 5345218).

Regarding claim 14, Woods disclose a brake light comprising:

at least two lamps (14, 16) operative as conventional brake lights, wherein a light signal intensity of said lamps is held constant concurrent with braking;

a lamp (CHMSL 12) wherein a light signal intensity of said lamp is modulated for a predetermined first time interval concurrent with braking, and wherein said light signal intensity is held constant following said first time interval as seen in Figures 1-2, col. 2, lines 61-68 and col. 3, lines 1-68 and col. 4, lines 1-55.

Regarding claim 16, Woods disclose said lamp with modulated light signal intensity is located in easily recognizable location in rear and central vehicle area (CHMSL) as seen in Figure 1 and the abstract.

Regarding claim 17, Woods disclose said lamps operative as conventional brake lights are located on rear tail fenders of vehicle (left and right lower rear brake lights) as seen in Figure 1.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 15 rejected under 35 U.S.C. 103(a) as being unpatentable over **Woods et al.** in view of **Pandohie** (US 5565841).

Regarding claim 15, Woods fail to disclose the modulation of said light signal intensity is prohibited for a predetermined second time interval for avoiding repetitive light signal modulation in stop and go traffic.

Pandohie teach of a lockout timer (for prohibiting the modulation of a light signal intensity for a predetermined second time interval for avoiding a repetitive confusing light in stop and go traffic in the brake light perception enhancement system as seen in Figures 1, 4-6; cols. 2, lines 30-68 and col. 3, lines 1-11, col. 6-8, col. 9, lines 1-10.

6. Claims 18-28 rejected under 35 U.S.C. 103(a) as being unpatentable over **Pandohie**.

Regarding claim 18, Pandohie discloses a brake light controller operative to modulate light signal intensity of said brake light, comprising:

a lockout timer (56) operative to signal a first predetermined time interval of prohibiting said light signal intensity modulation;

a modulation interval timer (58) operative to signal a second predetermined time interval of modulation of said light signal intensity;

a pulse width modulator (80) operative to drive a control element, whereby said pulse width modulator sends a modulated signal to said control element,

a control element (see Figure 1) operative to control an amount of current flow through a light source, whereby controlling the light signal intensity as seen in Figures 4-5; col. 6-8, col. 9, lines 1-10.

However, Pandohie fails to disclose a voltage sensor for sensing a voltage between a brake actuator switch and electric ground when a brake is applied for triggering a modulation. Since Pandohie discloses a brake switch (908) for connecting a terminal voltage from a power supply to the brake light enhancer (10) circuit when brake is applied for triggering a modulation as seen in figure 5, thus it would have been obvious to one of ordinary skilled in the art to recognize that the brake switch of Pandohie equivalently perform the function of sensing a braking as voltage sensor of present invention and the voltage sensor configuration is an alternative design choice.

Regarding claim 19, Pandohie fails to disclose the voltage sensor senses changes in voltage corresponding to changes in application of vehicle brakes, said sensor sending a signal to said modulation interval timer and said lockout timer, whereby said sensor indicates initiation or termination of braking. Since Pandohie discloses the brake switch (908) circuit as seen in Figure 1 equivalently perform the function of sensing whether a brake is being applied as the voltage sensor and sending a signal (A, B) to the modulation interval timer and lockout timer as seen in Figures 1, 4 and 5, col. 6-8, col. 9, lines 1-10, wherein the brake switch position indicates initiation or termination of braking, it would have been obvious to one of ordinary skilled in the art to realize that the voltage sensor configuration and brake switch circuit are equivalent alternative.

Regarding claim 20, Pandohie fails to disclose the lockout timer sends a signal to said pulse width modulator exhibiting an initiation or an expiration of said lockout time interval. Since Pandohie discloses the modulation interval timer receives lockout signal from lockout timer (56) from AND gate (70) via input (458) and outputs a modulation signal via output (758) AND with a PWM signal from output (378) to input (286, 186) of the control element via AND gate (86) for controlling the current flow through the brake light as seen in Figure 4, cols. 6-8, col. 9, lines 1-10, equivalently shown in Figure 5, it would have been obvious to one of ordinary skilled in the art to recognize that the lockout timer sends a signal to modulation interval timer for exhibiting an initiation or an expiration of the lockout time interval based on the input from the brake switch and the present invention is an alternative.

Regarding claim 21, Pandohie fails to disclose the modulation interval timer sends a signal to said pulse width modulator exhibiting an initiation or an expiration of said modulation time interval. Since Pandohie discloses the modulation interval timer outputs a modulation signal via output (758) AND with a PWM signal from output (378) to input (286, 186) of the control element via AND gate (86) for controlling the current flow through the brake light as seen in Figure 4, cols. 6-9, equivalently shown in Figure 5, it would have been obvious to one of ordinary skilled in the art to recognize that the modulation interval timer sends a signal exhibiting an initiation or an expiration of the modulation time interval based on the input from the brake switch, and the present invention is an alternative.

Regarding claim 22, Pandohie fails to disclose said pulse width modulator using signals received from said timers generates and sends a control signal to said control element. Since Pandohie discloses the modulation interval timer receives lockout signal from lockout timer (56) and outputs a modulation signal via output (758) AND with a PWM signal from output (378) to input (286, 186) of the control element via AND gate (86) for controlling the current flow through the brake light as seen in Figure 4, equivalently shown in Figure 5. The circuit shown in Figure 5 equivalently performs the function of the present invention for modulating a light signal intensity of a lamp for a predetermined time interval concurrent with the braking and remain constant. Thus, it would have been obvious to one of ordinary skilled in the art to realize that the present invention provides an alternative to the device of Pandohie.

Regarding claim 23, Pandohie discloses said control element modulates the current flow through said light source based upon said control signal (output 386 from AND gate 86) as seen in Figure 4.

Regarding claim 24, referring to claim 18 for explanation.

Regarding claim 25, referring to claim 18 for explanation.

Regarding claim 26, referring to claim 23 for explanation.

Regarding claim 27, referring to claim 18 for explanation.

Regarding claim 28, referring to claim 18 for explanation.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

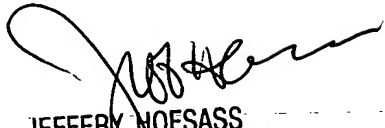
Wang (US 6326888) disclose an auxillary safety warning light system.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lam P Pham whose telephone number is 571-272-2977. The examiner can normally be reached on 9AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery A Hofsass can be reached on 571-272-2981. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lam Pham
October 15, 2004



JEFFERY NOFSASS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600